

Title (en)

OIL RETURN FROM EVAPORATOR TO COMPRESSOR IN A REFRIGERATION SYSTEM

Title (de)

OELRÜCKFÜHRUNG VOM VERDAMPFER ZUM VERDICHTER IN EINER KÄLTEANLAGE

Title (fr)

RETOUR D'HUILE DE L'EVAPORATEUR AU COMPRESSEUR DANS UN SYSTEME DE REFRIGERATION

Publication

EP 0963536 B1 20030409 (EN)

Application

EP 98902644 A 19980128

Priority

- US 9801054 W 19980128
- US 80154597 A 19970218

Abstract (en)

[origin: US5761914A] A refrigeration system employing a screw compressor and a falling film evaporator makes use of high-side pressure to drive lubricant, which escapes the compressor and collects as a lubricant-rich mixture of lubricant and refrigerant in the system evaporator, back to the compressor. The mixture is cyclically exposed to high-side pressure for a period of time which (i) varies in accordance with the difference between a sensed condenser-related pressure and a sensed evaporator-related pressure and (ii) is calculated to maintain a predetermined oil concentration in the lubricant-rich mixture in the evaporator so as to minimize the parasitic losses to system efficiency associated with the oil return process.

IPC 1-7

F25B 31/00

IPC 8 full level

F25B 43/02 (2006.01); **F25B 1/047** (2006.01); **F25B 31/00** (2006.01)

CPC (source: EP KR US)

F25B 1/047 (2013.01 - EP US); **F25B 31/004** (2013.01 - EP US); **F25B 39/028** (2013.01 - KR); **F25B 43/02** (2013.01 - KR); **F25B 2339/0242** (2013.01 - EP US); **F25B 2700/195** (2013.01 - KR); **F25B 2700/197** (2013.01 - KR)

Designated contracting state (EPC)

FR GB

DOCDB simple family (publication)

US 5761914 A 19980609; AU 5925298 A 19980908; CA 2274890 A1 19980820; CA 2274890 C 20020326; CN 100338407 C 20070919; CN 1244246 A 20000209; EP 0963536 A1 19991215; EP 0963536 B1 20030409; EP 1260773 A2 20021127; EP 1260773 A3 20041215; EP 1260773 B1 20171011; JP 2001511877 A 20010814; JP 4174076 B2 20081029; KR 100521232 B1 20051017; KR 20000071194 A 20001125; WO 9836229 A1 19980820

DOCDB simple family (application)

US 80154597 A 19970218; AU 5925298 A 19980128; CA 2274890 A 19980128; CN 98801921 A 19980128; EP 02016739 A 19980128; EP 98902644 A 19980128; JP 53573698 A 19980128; KR 19997007484 A 19990818; US 9801054 W 19980128